STUDENT LEAFLET

1992

NATURAL DISASTERS

are you prepared ?

dear students,

Pompeii and Herculaneum were once beautiful cities in Italy just off the coast of the Bay of Naples. In 79 A.D., a colossal volcanic eruption of Mount Vesuvius destroyed them completely, killing hundreds of people. For over 1,600 years, these cities lay buried under cement-like volcanic matter. Then, in 1709, a well-digger accidentally broke his spade in what used to be a theatre in Herculaneum, and the world rediscovered the long-lost cities.

Volcanic eruption is just one of the many kinds of natural disasters that hit the world from time to time. Cyclones, earthquakes, floods, forest fires and other natural disasters claim hundreds of thousands of lives each year and damage property worth billions of dollars. In 1931, more than 3.7 million people lost their lives due to floods of the Hwang-ho River in China. In 1989, more than 60,000 people became homeless when a hurricane lashed across the Caribbean Sea. And in March 1992, more than 36,000 buildings were destroyed after an earthquake struck Turkey.

Natural disasters can occur anywhere, any time. They do not discriminate between rich and poor, or between countries big and small. In the past, many people believed natural disasters were sent by gods to punish them for their sins and there was very little they could do about such disasters. Now we do have enough experience and ability to reduce the impact of natural disaste. by taking early precautions. We know years in advance which regions are likely to be hit by natural hazards. Satellites, for example, can forecast the approaches of floods and cyclones; seismographs can record the force and direction of an earthquake. As you will see from this leaflet, countries which take precautions in time are able to reduce greatly their loss and suffering from such disasters.

At the United Nations, the countries of the world are working together to minimize the harm caused by natural disasters. With this end in mind, they have declared the 1990s the **International Decade for Natural Disaster Reduction (IDNDR).** During this Decade, a concerted effort is being made to reduce the loss of life and destruction caused throughout the world by the violent forces of nature.

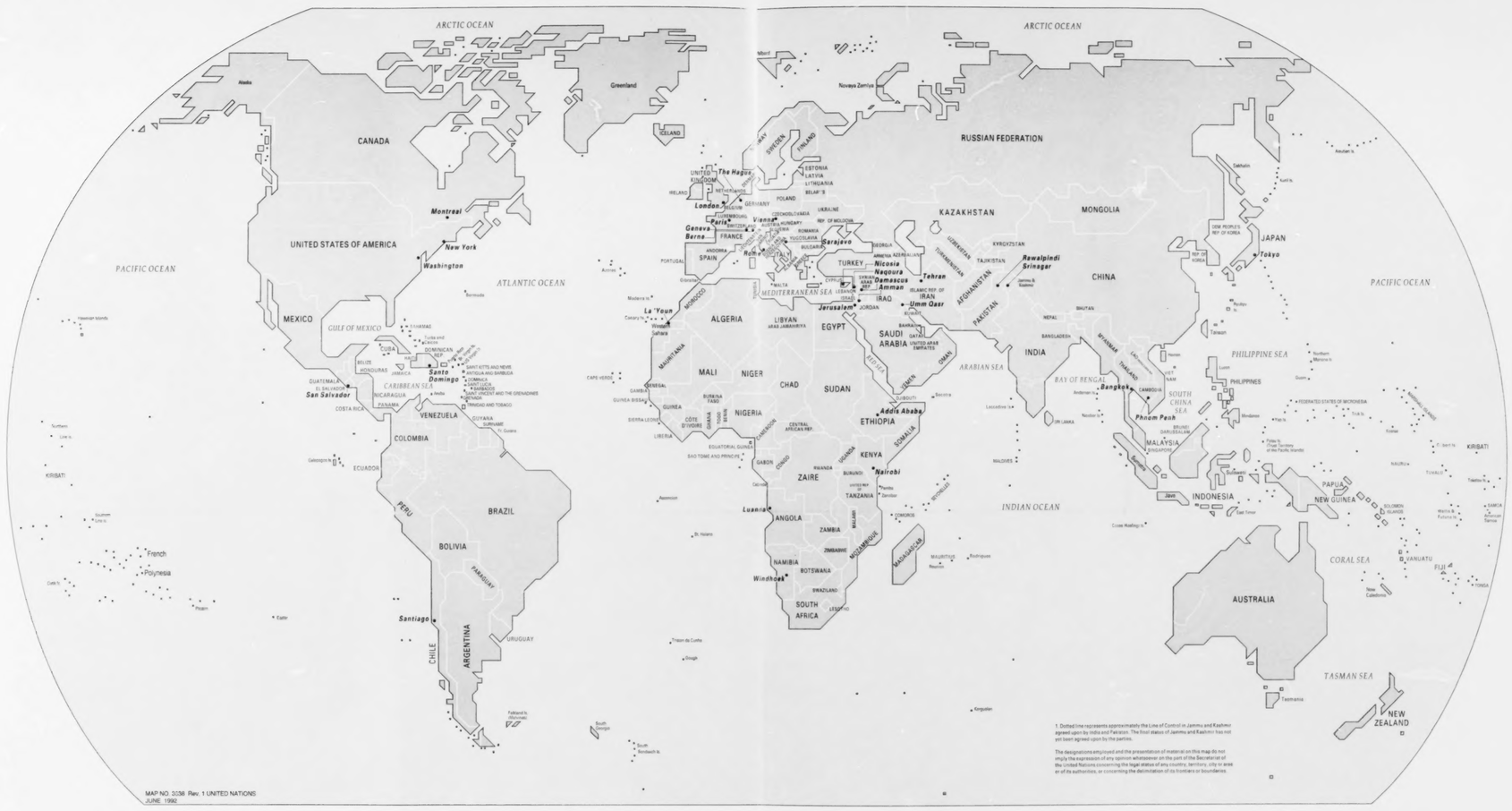
Although the United Nations and the countries of the world are involved, the Decade will be successful only when each community takes up the challenge and prepares itself for possible natural disasters. For example, an early warning system can be set up so that, before a disaster strikes, people will have enough time to reach a safe place. Storm-proof shelters can be built where people can be protected. Food and medical supplies can be stocked so that they are available when needed. Everyone, even children, can help by knowing what to do before, during and after a disaster.

Natural disasters are part of the environment in which we live. We cannot eliminate them, but if we work together, both locally and internationally, we'll be able to limit the loss of life and the destruction they cause.

Jan Eliasson
Emergency Relief Coordinator
United Nations

UNITED NATIONS

united nations map of the world



1. Dotted line represents approximately the Line of Control in Jammu and Kashmir agreed upon by India and Pakistan. The final status of Jammu and Kashmir has not yet been agreed upon by the parties.

The designations employed and the presentation of material on this map do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

MAP NO. 3038 Rev. 1 UNITED NATIONS
JUNE 1992

Members of the United Nations

(As of May 1992)

Country	Date of Admission	Country	Date of Admission	Country	Date of Admission	Country	Date of Admission
Afghanistan	19 Nov. 1946	Brunei Darussalam	21 Sep. 1984	Denmark	24 Oct. 1945	Guinea-Bissau	17 Sep. 1974
Albania	14 Dec. 1955	Bulgaria	14 Dec. 1955	Djibouti	20 Sep. 1977	Guyana	20 Sep. 1966
Algeria	8 Oct. 1962	Burkina Faso	20 Sep. 1960	Dominica	18 Dec. 1978	Haiti	24 Oct. 1945
Angola	1 Dec. 1976	Burundi	18 Sep. 1962	Dominican Republic	24 Oct. 1945	Honduras	17 Dec. 1945
Antigua and Barbuda	11 Nov. 1981	Cambodia	14 Dec. 1955	Ecuador	21 Dec. 1945	Hungary	14 Dec. 1955
Argentina	24 Oct. 1945	Cameroon	20 Sep. 1960	Egypt	24 Oct. 1945	Iceland	19 Nov. 1946
Armenia	2 Mar. 1992	Canada	9 Nov. 1945	El Salvador	24 Oct. 1945	India	30 Oct. 1945
Australia	1 Nov. 1945	Cape Verde	16 Sep. 1975	Equatorial Guinea	12 Nov. 1968	Indonesia	28 Sep. 1950
Austria	14 Dec. 1955	Central African Republic	20 Sep. 1960	Estonia	17 Sep. 1991	Iran	24 Oct. 1945
Azerbaijan	2 Mar. 1992	Chad	20 Sep. 1960	Ethiopia	13 Nov. 1945	Iraq	21 Dec. 1945
Bahamas	18 Sep. 1973	Chile	24 Oct. 1945	Federated States of Micronesia	17 Sep. 1991	Ireland	14 Dec. 1955
Bahrain	21 Sep. 1971	China	24 Oct. 1945			Israel	11 May 1949
Bangladesh	17 Sep. 1974	Colombia	5 Nov. 1945	Fiji	13 Oct. 1970	Italy	14 Dec. 1955
Barbados	9 Dec. 1966	Comoros	12 Nov. 1975	Finland	14 Dec. 1955	Jamaica	18 Sep. 1962
Belarus	24 Oct. 1945	Congo	20 Sep. 1960	France	24 Oct. 1945	Japan	18 Dec. 1956
Belgium	27 Dec. 1945	Costa Rica	2 Nov. 1945	Gabon	20 Sep. 1960	Jordan	14 Dec. 1955
Belize	25 Sep. 1981	Côte d'Ivoire	20 Sep. 1960	Gambia	21 Sep. 1965	Kazakhstan	2 Mar. 1992
Benin	20 Sep. 1960	Croatia	22 May 1992	Germany	18 Sep. 1973	Kenya	16 Dec. 1963
Bhutan	21 Sep. 1971	Cuba	24 Oct. 1945	Ghana	8 Mar. 1957	Kuwait	14 May 1963
Bolivia	14 Nov. 1945	Cyprus	20 Sep. 1960	Greece	25 Oct. 1945	Kyrgyzstan	2 Mar. 1992
Bosnia and Herzegovina	22 May 1992	Czechoslo kia	24 Oct. 1945	Grenada	17 Sep. 1974	Lao People's Democratic Republic	14 Dec. 1955
Botswana	17 Oct. 1966	Democratic eople's Republic of Korea	17 Sep. 1991	Guatemala	21Nov. 1945		
Brazil	24 Oct. 1945			Guinea	12 Dec. 1958	Latvia	17 Sep. 1991

Country	Date of Admission	Country	Date of Admission	Country	Date of Admission	Country	Date of Admission
Lebanon	24 Oct. 1945	Nepal	14 Dec. 1955	Saint Vincent and the Grenadines	16 Sep. 1980	Togo	20 Sep. 1960
Lesotho	17 Oct. 1966	Netherlands	10 Dec. 1945			Trinidad and Tobago	18 Sep. 1962
Liberia	2 Nov. 1945	New Zealand	24 Oct. 1945	Samoa	15 Dec. 1976	Tunisia	12 Nov. 1956
Libya	14 Dec. 1955	Nicaragua	24 Oct. 1945	San Marino	2 Mar. 1992	Turkey	24 Oct. 1945
Liechtenstein	18 Sep. 1990	Niger	20 Sep. 1960	Sao Tomé and Principe	16 Sep. 1975	Turkmenistan	2 Mar. 1992
Lithuania	17 Sep. 1991	Nigeria	7 Oct. 1960	Saudi Arabia	24 Oct. 1945	Uganda	25 Oct. 1962
Luxembourg	24 Oct. 1945	Norway	27 Nov. 1945	Senegal	28 Sep. 1960	Ukraine	24 Oct. 1945
Madagascar	20 Sep. 1960	Oman	7 Oct. 1971	Seychelles	21 Sep. 1976	United Arab Emirates	9 Dec. 1971
Malawi	1 Dec. 1964	Pakistan	30 Sep. 1947	Sierra Leone	27 Sep. 1961	United Kingdom	24 Oct. 1945
Malaysia	17 Sep. 1957	Panama	13 Nov. 1945	Singapore	21 Sep. 1965	United Republic of Tanzania	14 Dec. 1961
Maldives	21 Sep. 1965	Papua New Guinea	10 Oct. 1975	Slovenia	22 May 1992	United States	24 Oct. 1945
Mali	28 Sep. 1960	Paraguay	24 Oct. 1945	Solomon Islands	19 Sep. 1978	Uruguay	18 Dec. 1945
Malta	1 Dec. 1964	Peru	31 Oct. 1945	Somalia	20 Sep. 1960	Uzbekistan	2 Mar. 1992
Marshall Islands	17 Sep. 1991	Philippines	24 Oct. 1945	South Africa	7 Nov. 1945	Vanuatu	15 Sep. 1981
Mauritania	27 Oct. 1961	Poland	24 Oct. 1945	Spain	14 Dec. 1955	Venezuela	15 Nov. 1945
Mauritius	24 Apr. 1968	Portugal	14 Dec. 1955	Sri Lanka	14 Dec. 1955	Viet Nam	20 Sep. 1977
Mexico	7 Nov. 1945	Qatar	21 Sep. 1971	Sudan	12 Nov. 1956	Yemen	30 Sep. 1947
Moldova	2 Mar. 1992	Republic of Korea	17 Sep. 1991	Suriname	4 Dec. 1975	Yugoslavia	24 Oct. 1945
Mongolia	27 Oct. 1961	Romania	14 Dec. 1955	Swaziland	24 Sep. 1968	Zaire	20 Sep. 1960
Morocco	12 Nov. 1956	Russian Federation	24 Oct. 1945	Sweden	19 Nov. 1946	Zambia	1 Dec. 1964
Mozambique	16 Sep. 1975	Rwanda	18 Sep. 1962	Syria	24 Oct. 1945	Zimbabwe	25 Aug. 1980
Myanmar	19 Apr. 1948	Saint Kitts and Nevis	23 Sep. 1983	Tajikistan	2 Mar. 1992		
Namibia	23 Apr. 1990	Saint Lucia	18 Sep. 1979	Thailand	16 Dec. 1946		

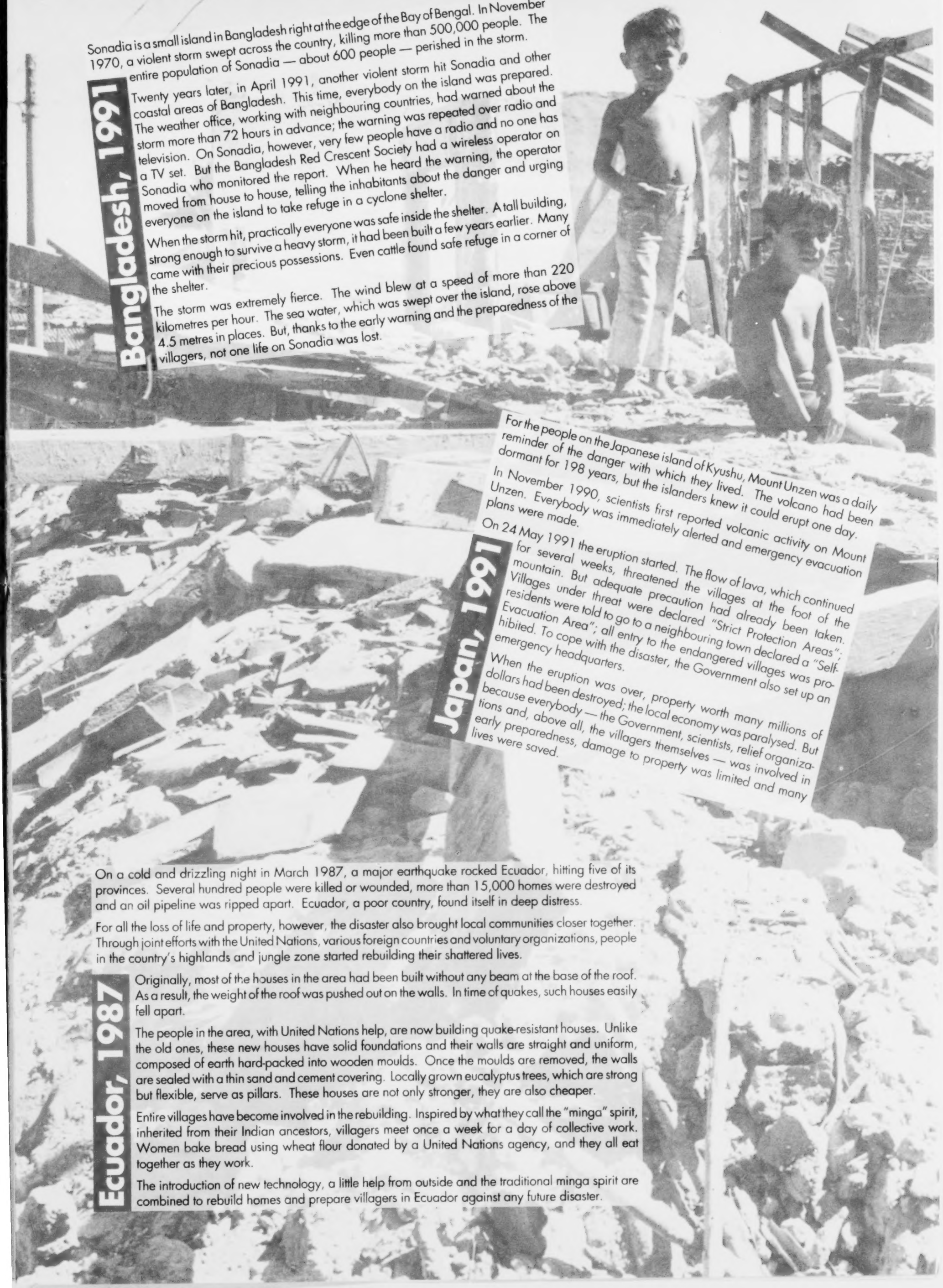
This world map shows major natural disasters that have hit different countries of the world over the past 100 years. Symbols used on the map represent various types of natural disasters. Identify the symbols and the countries where the disasters have occurred. To locate the countries correctly, you may consult the list of "Some Major Natural Disasters (1900-1991)" and the UN Map of the World included in this leaflet.

some major natural disasters
(1900-1991)

YEAR	EVENT		PLACE	DEATHS
1900	Hurricane	●	USA	6,000
1920	Earthquake / Landslide	◆	China	200,000
1923	Earthquake / Fire	◆	Japan	143,000
1931	Flood	✚	China	3,700,000
1932	Earthquake	◆	China	70,000
1935	Earthquake	◆	India	60,000
1939	Earthquake / Tsunami	◆	Chile	30,000
1948	Earthquake	◆	USSR	100,000
1949	Floods	✚	China	57,000
1949	Earthquake / Landslides	◆	USSR	12,000-20,000
1954	Floods	✚	China	40,000
1960	Earthquake	◆	Morocco	12,000
1962	Earthquake	◆	Iran	12,000
1963	Tropical cyclone	✪	Bangladesh	22,000
1965	Tropical cyclone	✪	Bangladesh	17,000
1965	Tropical cyclone	✪	Bangladesh	30,000
1965	Tropical cyclone	✪	Bangladesh	10,000
1968	Earthquake	◆	Iran	12,000
1970	Earthquake / Landslide	◆	Peru	70,000
1970	Tropical cyclone	✪	Bangladesh	300,000-500,000
1971	Tropical cyclone	✪	India	10,000-25,000
1976	Earthquake	◆	China	250,000
1976	Earthquake	◆	Guatemala	24,000
1977	Tropical cyclone	✪	India	20,000
1978	Earthquake	◆	Iran	25,000
1985	Earthquake	◆	Mexico	10,000
1985	Volcanic eruption	▲	Colombia	22,000
1988	Earthquake	◆	USSR	25,000
1990	Earthquake	◆	Iran	37,000
1991	Tropical cyclone	✪	Bangladesh	140,000

Sources: National Academy of Sciences (USA), WHO and UNDRO

WHEN A COMMUNITY IS READY



Bangladesh, 1991

Sonadia is a small island in Bangladesh right at the edge of the Bay of Bengal. In November 1970, a violent storm swept across the country, killing more than 500,000 people. The entire population of Sonadia — about 600 people — perished in the storm.

Twenty years later, in April 1991, another violent storm hit Sonadia and other coastal areas of Bangladesh. This time, everybody on the island was prepared. The weather office, working with neighbouring countries, had warned about the storm more than 72 hours in advance; the warning was repeated over radio and television. On Sonadia, however, very few people have a radio and no one has a TV set. But the Bangladesh Red Crescent Society had a wireless operator on Sonadia who monitored the report. When he heard the warning, the operator moved from house to house, telling the inhabitants about the danger and urging everyone on the island to take refuge in a cyclone shelter.

When the storm hit, practically everyone was safe inside the shelter. A tall building, strong enough to survive a heavy storm, it had been built a few years earlier. Many came with their precious possessions. Even cattle found safe refuge in a corner of the shelter.

The storm was extremely fierce. The wind blew at a speed of more than 220 kilometres per hour. The sea water, which was swept over the island, rose above 4.5 metres in places. But, thanks to the early warning and the preparedness of the villagers, not one life on Sonadia was lost.

Japan, 1991

For the people on the Japanese island of Kyushu, Mount Unzen was a daily reminder of the danger with which they lived. The volcano had been dormant for 198 years, but the islanders knew it could erupt one day.

In November 1990, scientists first reported volcanic activity on Mount Unzen. Everybody was immediately alerted and emergency evacuation plans were made.

On 24 May 1991 the eruption started. The flow of lava, which continued for several weeks, threatened the villages at the foot of the mountain. But adequate precaution had already been taken. Villages under threat were declared "Strict Protection Areas"; residents were told to go to a neighbouring town declared a "Self-Evacuation Area"; all entry to the endangered villages was prohibited. To cope with the disaster, the Government also set up an emergency headquarters.

When the eruption was over, property worth many millions of dollars had been destroyed; the local economy was paralysed. But because everybody — the Government, scientists, relief organizations and, above all, the villagers themselves — was involved in early preparedness, damage to property was limited and many lives were saved.

Ecuador, 1987

On a cold and drizzling night in March 1987, a major earthquake rocked Ecuador, hitting five of its provinces. Several hundred people were killed or wounded, more than 15,000 homes were destroyed and an oil pipeline was ripped apart. Ecuador, a poor country, found itself in deep distress.

For all the loss of life and property, however, the disaster also brought local communities closer together. Through joint efforts with the United Nations, various foreign countries and voluntary organizations, people in the country's highlands and jungle zone started rebuilding their shattered lives.

Originally, most of the houses in the area had been built without any beam at the base of the roof. As a result, the weight of the roof was pushed out on the walls. In time of quakes, such houses easily fell apart.

The people in the area, with United Nations help, are now building quake-resistant houses. Unlike the old ones, these new houses have solid foundations and their walls are straight and uniform, composed of earth hard-packed into wooden moulds. Once the moulds are removed, the walls are sealed with a thin sand and cement covering. Locally grown eucalyptus trees, which are strong but flexible, serve as pillars. These houses are not only stronger, they are also cheaper.

Entire villages have become involved in the rebuilding. Inspired by what they call the "minga" spirit, inherited from their Indian ancestors, villagers meet once a week for a day of collective work. Women bake bread using wheat flour donated by a United Nations agency, and they all eat together as they work.

The introduction of new technology, a little help from outside and the traditional minga spirit are combined to rebuild homes and prepare villagers in Ecuador against any future disaster.